

Please mail the completed form and required material to:

New Hampshire Division of Historical Resources  
State Historic Preservation Office  
Attention: Review & Compliance  
19 Pillsbury Street, Concord, NH 03301-3570

DHR Use Only

R&C # \_\_\_\_\_

Log In Date \_\_\_\_ / \_\_\_\_ / \_\_\_\_

Response Date \_\_\_\_ / \_\_\_\_ / \_\_\_\_

Sent Date \_\_\_\_ / \_\_\_\_ / \_\_\_\_

## Request for Project Review by the New Hampshire Division of Historical Resources

☒ This is a new submittal

☐ This is additional information relating to DHR Review & Compliance (R&C) #:

### GENERAL PROJECT INFORMATION

Project Title Macallen Dam Removal

Project Location Lamprey River, Mill Street

City/Town Newmarket Tax Map U2 Lot # N/A

NH State Plane - Feet Geographic Coordinates: Easting 1,179,851.68 Northing 212,751.13  
(See RPR Instructions and R&C FAQs for guidance.)

Lead Federal Agency and Contact (if applicable)

Eric Hutchins

National Oceanic and Atmospheric Association

NOAA Restoration Center

50 Great Republic Drive

Gloucester, MA 01930-2276

eric.hutchins@noaa.gov

(Agency providing funds, licenses, or permits)

Permit Type and Permit or Job Reference # n/a

State Agency and Contact (if applicable)

Deborah Loiselle, River Restoration Coordinator

NHDES Dam Bureau

PO Box 95

Concord, NH 03302-0095

Deborah.Loiselle@des.nh.gov

Permit Type and Permit or Job Reference # n/a

### APPLICANT INFORMATION

Applicant Name Town of Newmarket, attn Diane Hardy

Mailing Address 186 Main Street Phone Number (603) 659-8501 x 1315

City Newmarket State NH Zip 03857 Email dhardy@newmarketnh.gov

### CONTACT PERSON TO RECEIVE RESPONSE

Name/Company Town of Newmarket, attn Diane Hardy

Mailing Address 186 Main Street Phone Number (603) 659-8501 x 1315

City Newmarket State NH Zip 03857 Email dhardy@newmarketnh.gov

### PLEASE COPY ON CORRESPONDENCE:

Name/Company Gary Lemay, EIT, Gomez and Sullivan Engineers, PC

Mailing Address 41 Liberty Hill Road - Building 1, PO Box 2179 Phone Number (603) 428-4960

City Henniker State NH Zip 03242 Email glemay@gomezandsullivan.com

**PROJECTS CANNOT BE PROCESSED WITHOUT THIS INFORMATION**

Project Boundaries and Description

- ☒ Attach the relevant portion of a 7.5' USGS Map (photocopied or computer-generated) **indicating the defined project boundary.** (See RPR Instructions and R&C FAQs for guidance.)
- ☒ Attach a detailed narrative description of the proposed project.
- ☒ Attach a site plan. The site plan should include the project boundaries and areas of proposed excavation.
- ☒ Attach photos of the project area (overview of project location and area adjacent to project location, and specific areas of proposed impacts and disturbances.) (Informative photo captions are requested.)
- ☒ A DHR file review must be conducted to identify properties within or adjacent to the project area. Provide file review results in **Table 1** or within project narrative description. (Blank table forms are available on the DHR website.)

Architecture

Are there any buildings, structures (bridges, walls, culverts, etc.) objects, districts or landscapes within the project area? ☒ Yes ☐ No

If no, skip to Archaeology section. If yes, submit all of the following information:

Approximate age(s): See attached narrative

- ☒ Photographs of **each** resource or streetscape located within the project area, with captions, along with a photo key. (Digital photographs are accepted. All photographs must be clear, crisp and focused.)
- ☒ If the project involves rehabilitation, demolition, additions, or alterations to existing buildings or structures, provide additional photographs showing detailed project work locations. (i.e. Detail photo of windows if window replacement is proposed.)

Archaeology

Does the proposed undertaking involve ground-disturbing activity? ☒ Yes ☐ No

If yes, submit all of the following information:

- ☒ Description of current and previous land use and disturbances.
- ☒ Available information concerning known or suspected archaeological resources within the project area (such as cellar holes, wells, foundations, dams, etc.)

**Please note that for many projects an architectural and/or archaeological survey or other additional information may be needed to complete the Section 106 process.**

**DHR Comment/Finding Recommendation** *This Space for Division of Historical Resources Use Only*

☐ **Insufficient information to initiate review.** ☐ Additional information is needed in order to complete review.

☐ No Potential to cause Effects ☐ No Historic Properties Affected ☐ No Adverse Effect ☐ Adverse Effect

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

*If plans change or resources are discovered in the course of this project, you must contact the Division of Historical Resources as required by federal law and regulation.*

Authorized Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Request for Project Review – Macallen Dam Removal, Newmarket, New Hampshire**

## Project Description

The Town of Newmarket (the Town) is exploring the option of removing the Town-owned Macallen Dam (state dam no. 177.01), located at head-of-tide on the Lamprey River in Newmarket, New Hampshire (Figure 1 and Photographs 1–4). Macallen Dam has several documented deficiencies, the most problematic of which is insufficient spillway capacity, and has been classified as a “high” hazard dam by the New Hampshire Department of Environmental Services (NHDES). In addition to dam removal, the Town is also exploring other options for addressing the dam’s deficiencies, such as dam modification. A 2010 study by Wright-Pierce Engineers provided a cost estimate to address the deficiencies and associated repairs to the dam, while a 2012 study by Wright-Pierce Engineers provided a cost estimate for dam modifications necessary to meet the spillway capacity deficiency. Before proceeding with that work, the Town of Newmarket would like to examine the option of dam removal (the Project) as a means to address the deficiencies, potentially alleviate upstream flooding, and promote restoration of aquatic habitat and diadromous fish. Based on potential grant funding for dam repair or removal, compliance with Section 106 of the National Historic Preservation Act, as amended, may be required for dam removal. Under these circumstances, the National Oceanic and Atmospheric Association (NOAA), is anticipated to serve as the Lead Federal Agency. The purpose of this Request for Project Review is to initiate consultation with the New Hampshire Division of Historical Resources (DHR) regarding the identification of cultural resources in support of the Macallen Dam Removal Feasibility Study, and to solicit the DHR’s opinion regarding the necessity of any further cultural resources identification effort(s) that might be required as a component of dam removal permitting.

Macallen Dam is a 27-foot-tall-by-150-foot-wide, gravity type, run-of-the-river (aka weir) structure. The dam spillway is 70 feet long, has a trapezoidal cross section, and is constructed of granite ashlar (Figure 2, see Photographs 1–4). The current dam was built in 1887 and modified circa 1925 with a concrete sluice gate structure at its east (river left) end; however, a dam is shown at this approximate location on historical maps of Newmarket as early as 1832. In addition, NHDES records indicate that Native Americans may have established a fish weir at or near the site of the current dam. A concrete fish ladder (owned and maintained by New Hampshire Fish and Game) was added to the dam along the west bank of the river (river-right) in 1971 and serves as the dam’s west abutment (ACOE 1980:6 – 1).

Field survey for the RPR was completed October 7, 2013, during a temporary impoundment drawdown. Adjacent lands immediately upstream, adjacent to, and downstream of the dam have been extensively developed for industrial activity during the nineteenth century, and further disturbed by commercial and residential development during the twentieth century. The river immediately upstream and downstream of the dam is channelized with split granite and concrete training/retaining walls, which in some instances serve as foundations for adjacent industrial buildings associated with the Newmarket Manufacturing Company (Photograph 5, see also Photographs 1-3). Bedrock outcroppings project from underneath the stone walls in some instances, suggesting that adjacent shorelines have been filled. The Newmarket Manufacturing Company, built 1823–1920, is a former textile plant consisting of two- to four-story stone and brick mill buildings that now house commercial offices, light manufacturing facilities, and residential condominiums (Photographs 6 and 7). Immediately upstream of the dam, the foundation former Cloth Room/Store House (now called the Selectwood Building), contains an arched headrace opening (see Photograph 3). The retaining wall on the west bank, just upstream of the Newmarket Manufacturing Company Machine Shop (now the Durham Book Exchange), contains a second possible headrace opening that is now filled with concrete (Photograph 8). Three deteriorated stone-filled timber cribs, identified on Project feasibility study plans as a legacy dam, are set in the river channel approximately 50 feet upstream of the dam (Photograph 9).

Upstream of the river walls, the east river bank is bedrock and the west river bank is covered with stone riprap. Main Street (Route 108) crosses the Lamprey River on Veteran’s Bridge, approximately 250 feet upstream of the dam (Photograph 10, see also Photographs 1, 3, and 9). The steel girder bridge

was recently reconstructed and rests on concrete and granite abutments. Upstream of the bridge, the river shoreline reverts to a natural silt and gravel appearance, with some granite rubble or riprap evident adjacent to the bridge abutments (Photograph 11). Immediately downstream of the dam, the river passes under a modern steel truss pedestrian bridge and flows in a rock-strewn channel between retaining walls and mill buildings for a distance of about 250 feet. It then abruptly widens into a tidal stretch of river that eventually flows into Great Bay. Additional mill buildings, retaining walls, and piers line the west side of the river, while the east side of the river south of the mill complex appears to be unaltered natural shoreline.

The dam creates an impoundment extending upstream approximately 2.5 miles up the Lamprey River and approximately 0.75 miles up the Piscassic River – a major tributary to the Lamprey River (Figure 3). The impoundment extends into Durham and creates several backwater/bay areas, including an impounded area nearly circling what is referred to as Moat Island. The adjacent shoreline in these upstream areas is a combination of undeveloped lowland areas and residential development in adjacent upland areas.

Conceptual-level feasibility study plans consider removal of the full vertical extent of the Macallen Dam, sluice gate, and fish ladder. In addition to the dam removal, direct Project impacts consist of removal of the upstream legacy dam structure and equipment staging and access roads necessary for the removals. Staging and access will occur primarily on the west bank of the river immediately north of the Durham Book Exchange building. A smaller staging and access area also will be established on the east bank of the river west and adjacent to the Selectwood Building (Figure 4). Grading/slope modifications to the banks on both sides of the river bank will be necessary as part of the access roads construction and a pair of temporary 4-foot diameter bypass culverts will be installed within the river channel.

The impoundment's existing normal water levels are approximately 23.75 feet (NAVD88 datum) under the daily average flow of 337 cfs. Assuming complete dam removal, preliminary modeling results indicate that water elevations would drop by 12 to 20 feet between Veteran's Bridge and the Macallen Dam, by 8 to 12 feet within Veteran's Bridge, and by 5 to 8 feet upstream of Veteran's Bridge. In addition, most backwater areas (Moat Island, other bays) will likely be mostly dewatered, and the width of the stream in the Moat Island area will also likely be greatly reduced. Sediment transport modeling has not yet been conducted. The impoundment drawdown conducted by the town in October 2013, however, suggests there may be a reach of river approximately 9,000 to 12,000 feet upstream of Macallen Dam that will become more riverine, and that there is likely to be some sediment mobilization along that stretch (email communication from Gary Lemay, Gomez & Sullivan, March 28, 2014) (see Figure 3).

## DHR File Review

### *Architectural Resources*

The Public Archaeology Laboratory, Inc. (PAL) conducted the architectural inventory file review at DHR on November 19, 2013.

Macallen Dam is not included in the DHR architectural inventory files. The dam is located within, but not listed as a contributing resource to, the Newmarket Commercial and Industrial Historic District (the Historic District), which was listed in the National Register of Historic Places (National Register) in 1980 (Figure 5, Photographs 12 and 13, see also Figure 2). As presently defined, the Project's direct impact areas are also fully encompassed within the boundaries of the Historic District, which extends south and west of the Project location (see Figure 2). The Newmarket Commercial and Industrial District is significant as an intact and unique example of a nineteenth-century mill town developed on the Waltham, Massachusetts, model. The identified areas of significance for the Historic District

include Architecture, Commerce, and Industry and the period of significance is identified as 1822–1930. The over 10-acre Historic District contains 140 resources relating to the industrial, commercial, residential, religious, and municipal development of Newmarket, whose downtown was established by the Newmarket Manufacturing Company as a planned textile manufacturing community. Investors from Salem, Massachusetts founded the company in 1822 and the village was intended to emulate the paternalistic model of Waltham, which was established by famous textile concern Boston Associates under the leadership of Francis Cabot Lowell. The granite mill buildings have been described as among the most beautiful of the period in New Hampshire and northern New England (Candee 1980:n.p.).

Macallen Dam is historically associated with the Newmarket Manufacturing Company, which, according to the Historic District's documentation, built the structure to replace an earlier dam at the site that was damaged by flooding in 1887 (Candee 1980). A dam is shown at this approximate location on historical maps of Newmarket as early as 1832 and historical insurance maps show that water retained by the dam powered manufacturing operations in the company mills via water wheels or turbines in Mill #1 and Mill #3 (Sanborn Map Company 1887, 1892, 1898, 1904, 1912, 1925; Walker 1832) (Figures 6–8). At an unknown date, the waterpower infrastructure was retrofitted or otherwise adapted for hydroelectric generation, which ended about 1955. Subsequent to that date, use of water retained by the dam was limited to fire suppression and industrial processing (ACOE 1980:1 – 3; Gomez and Sullivan Engineers, PC).

The Newmarket Manufacturing Company mill complex contains 13 buildings built between 1824 and 1920 that contribute to the significance of the Historic District. These buildings are set on multiple parcels totaling approximately 7.3 acres along the river extending approximately 1400 feet south of the Main Street Bridge and encompassing Macallen Dam near the north end of the complex. Five contributing mill buildings are immediately adjacent to the dam and Project staging and access areas: Mill #1 (NR resource no. 1), Mill #3 (NR resource no. 3), Store House #1 and 2 (NR resource no. 8), the Store House (NR resource no. 9), and the Machine Shop (NR resource no. 10) (see Figure 2). Mill #7 (NR resource no. 7), formerly located on the east river bank adjacent to the dam, is now demolished and has been replaced with a brick condominium block and parking lot (See Photographs 1–3 and 5–7).

A preservation planning study and related NHDHR review completed in 1995 identified the North Main Street Study Area (no NHDHR area designation), located adjacent to the Project area, as potentially eligible for listing in the National Register as an expansion to the Historic District (see Figure 5, Photograph 14). Inventoried individual resources within the North Main Street Study Area consist of: 58-60 North Main Street (NWM0010), 54-56 North Main Street (NWM0011), [-] North Main Street (NWM0012); 48 North Main Street (NWM0013), 42-44 North Main Street (NWM0014), 32 North Main Street (NWM0015), and 28 North Main Street (NWM0016). These are mid/late-nineteenth century vernacular residences. Additional study was recommended in order to complete a determination of eligibility for the North Main Street Study Area. A second preservation planning study resulted in an NHDHR determination that the Newmarket Industrial and Commercial Historic District Boundary Extension (NHDHR Area A) is eligible for listing in the National Register as an expansion of the established Historic District. This area is not adjacent to the Project location (Wilson 1991 and 1995) (See Figure 5).

### *Archaeological Resources*

PAL conducted the archaeological site file review at DHR on October 8, 2013.

Twenty-four archaeological sites are recorded within a five-kilometer (km) radius of the proposed study area: nine pre-contact sites, six post-contact sites, and nine sites with pre- and post-contact components. None of the recorded archaeological sites are located within the study area.

The pre-contact sites consist of the Marsh Site (27-RK-358), a habitation/camp site dating to the Early, Middle, and Late Woodland periods; the Hayden's Field Site (27-RK-137), a Woodland period site of unknown function; and seven sites of indeterminate age and function (27-RK-138, 27-RK-139, 27-RK-

150, 27-RK-154, 27-ST-23, 27-ST-45, and 27-ST-46). The post-contact sites date from the seventeenth to twentieth centuries and consist of a seventeenth-century canal (27-ST-66), an eighteenth- to twentieth-century farmstead (27-ST-44), a nineteenth-century house and tavern site (27-ST-67), a nineteenth- to twentieth-century farmstead (27-ST-78), and two sites of indeterminate date (27-RK-152 and 27-RK-395). Multi-component sites within the study area comprise one nineteenth- to twentieth-century railroad company house with a Late Archaic period workshop on the property (27-RK-324), and eight sites (27-RK-53, 27-RK-19, 27-RK-144, 27-RK-309, 27-RK-310, 27-RK-311, 27-RK-377 and 27-ST-38) associated with eighteenth- through twentieth-century domestic life, industry, and transportation that each include a pre-contact component of indeterminate date and function.

Two sites (27-RK-309 and 27-RK-310) have been identified as potentially eligible for listing in the National Register, and one site (27-RK-311) was determined to be ineligible. Sites 27-RK-309 and 27-RK-310 are late eighteenth- to nineteenth-century residential sites located on the north side of the Squamscott River in the town of Newfield. Site 27-RK-309 consists of the remains of a late eighteenth-century house foundation and a large artifact assemblage. Site 27-RK-310 comprises late eighteenth- to mid-nineteenth-century archaeological deposits associated with an extant historic structure. Both sites also contain pre-contact chert chipping debris.

While no pre-contact archaeological sites are documented in the immediate vicinity of the project area and industrial development likely has destroyed much of the original landscape, the potential for pre-contact cultural resources along the river is considered high. An historical account of Newmarket (George 1932) states that early seventeenth-century deeds document a Squamscott village along the east bank of the river just below the falls and a Native cemetery situated on the west bank above the falls. Additionally, the area downstream from the dam where the river widens includes a long stretch of natural/tidal shoreline. This area fronts a largely undeveloped stretch of land that includes Newmarket Park. The riverine and tidal resources in this location would have provided a rich resource for local Native people. Review of historical maps (Hurd 1892; USGS 1893, 1916, 1941, 1956) indicates that this land was never developed and it therefore has a high potential for pre-contact cultural resources.

There is a moderate to high potential for post-contact archaeological resources within the Macallen Dam project area. While the existing mill structures were built in the nineteenth century, the location and topography of the project area suggests that it was likely the site of earlier, small-scale industries such as saw- and grist-mills that made use of the available water power. It is possible that archaeological features and deposits related to both earlier and extant mills and dams may be present in the project area, as well as cultural materials related to the mill buildings, machine shop, and agent's house, as well as the former company-owned boarding houses that once stood along Main Street. Such resources could potentially include foundation remains, old dam and mill works remnants, and trash deposits.

#### Preliminary Recommended Area of Potential Effect (APE)

##### *Architectural Resources*

The Project as presented in the feasibility study lies within the Newmarket Industrial and Commercial Historic District, a historic property listed in the National Register. The Project will directly impact the Macallen Dam, a resource with documented associations to historical manufacturing activities in the historic district, but whose status as an historic property is undetermined. Direct impacts relating to the removal of the dam and visual or other indirect impacts relating to project removal, access, and staging activities may cause alterations in the character of the identified Historic District property. However, those impacts are as yet unknown because of the early (conceptual) stage of Project planning and undetermined status of the dam as a historic property. Based on the potential for project impacts, the preliminary recommended APE for architectural resources is defined as the current boundaries of the Newmarket Industrial and Commercial Historic District, with extensions to include the North Main Street Study Area and Newmarket Industrial and Commercial Historic District Boundary

Extension (see Figure 5).

### *Archaeological Resources*

The preliminary recommended APE for archaeological resources includes the direct construction impact areas immediately surrounding the dam and fish ladder structures inclusive of all proposed access roads and staging areas (see Figure 4). PAL also recommends a preliminary APE for the upstream extent of the impoundment to include those areas that will be dewatered with the “dam out” as depicted by the brown shading on Figure 3. This preliminary recommended APE is designed to capture potential archeological resources submerged within the existing impoundment that may be exposed following the dam removal, and to address changes in river morphology and scour, erosion, or sedimentation patterns that could impact those resources.

### Recommendations for Additional Survey

#### *Architectural Resources*

Intensive survey and National Register evaluation of the Macallen Dam is recommended to assess the significance and contributing status of the structure within the established Newmarket Industrial and Commercial Historic District.

#### *Archaeological Resources*

A Phase 1A Archaeological Survey is recommended to establish a final recommended archaeological APE for the Macallen Dam Removal Feasibility Study. The survey should include comprehensive pre- and post-contact histories of the study area, including any ethnographic or historical references to migratory fish being present upstream before a dam was located at the “First Falls;” detailed archaeological sensitivity statements; and recommendations for additional Phase 1B Archaeological Survey, as required.

### References Cited

#### Army Corps of Engineers (ACOE)

- 1980        *Macallen Dam, NH 00365: Phase I Inspection Report, National Dam Inspection Program.*  
Department of the Army, New England Division, Corps of Engineers, Waltham, MA.

#### Candee, Richard

- 1980        *Newmarket Commercial and Industrial Historic District National Register of Historic Places  
Nomination Form* On file at the New Hampshire Department of Historic Resources, Concord, NH.

#### Chace, J.

- 1857        *Map of Rockingham Co., New Hampshire.* Retrieved online at [www.old-maps.com](http://www.old-maps.com).

#### George, Nellie Ida Palmer

- 1932        *Old Newmarket, New Hampshire: Historical Sketches.* News-letter Press, Newmarket, NH.

#### Gomez and Sullivan Engineers, PC

- 2014        *Technical Summary Memorandum, Dam Feasibility and Impact Analysis: Macallen Dam,  
Newmarket, NH.* Prepared for Town of Newmarket, New Hampshire by Gomez and  
Sullivan Engineers, PC, Henniker, NH.

#### Hurd, D. Hamilton (editor)

- 1892        *Town and City Atlas of the State of New Hampshire.* D.H. Hurd and Co., Boston, MA.

Sanborn Map Company

- 1887      *Newmarket, NH.* Sanborn Map and Publishing Company, New York, NY.
- 1892      *Newmarket, NH.* Sanborn Map and Publishing Company, New York, NY.
- 1898      *Newmarket, NH.* Sanborn Map and Publishing Company, New York, NY.
- 1904      *Newmarket, NH.* Sanborn Map and Publishing Company, New York, NY.
- 1912      *Newmarket, NH.* Sanborn Map and Publishing Company, New York, NY.
- 1925      *Newmarket, NH.* Sanborn Map and Publishing Company, New York, NY.

United States Geological Survey

- 1893      *Dover, NH-ME Quadrangle Map*, 15 minute series. Washington, DC
- 1916      *Dover, NH-ME Quadrangle Map*, 15 minute series. Washington, DC
- 1941      *Dover, NH-ME Quadrangle Map*, 15 minute series. Washington, DC.

United States Geological Survey

- 1956      *Newmarket, New Hampshire*, 7.5 minute series. Washington, DC.

Walker, Beth, Surveyor

- 1832      *Plan of the village of Lamprey River in the town of Newmarket.* On file at the Newmarket Historical Society, Newmarket, NH.

Wilson, Linda

- 1995      NHDRH Determination of Eligibility: Newmarket #10 – #16. On file, New Hampshire Division of Historical Resources, Concord, New Hampshire.







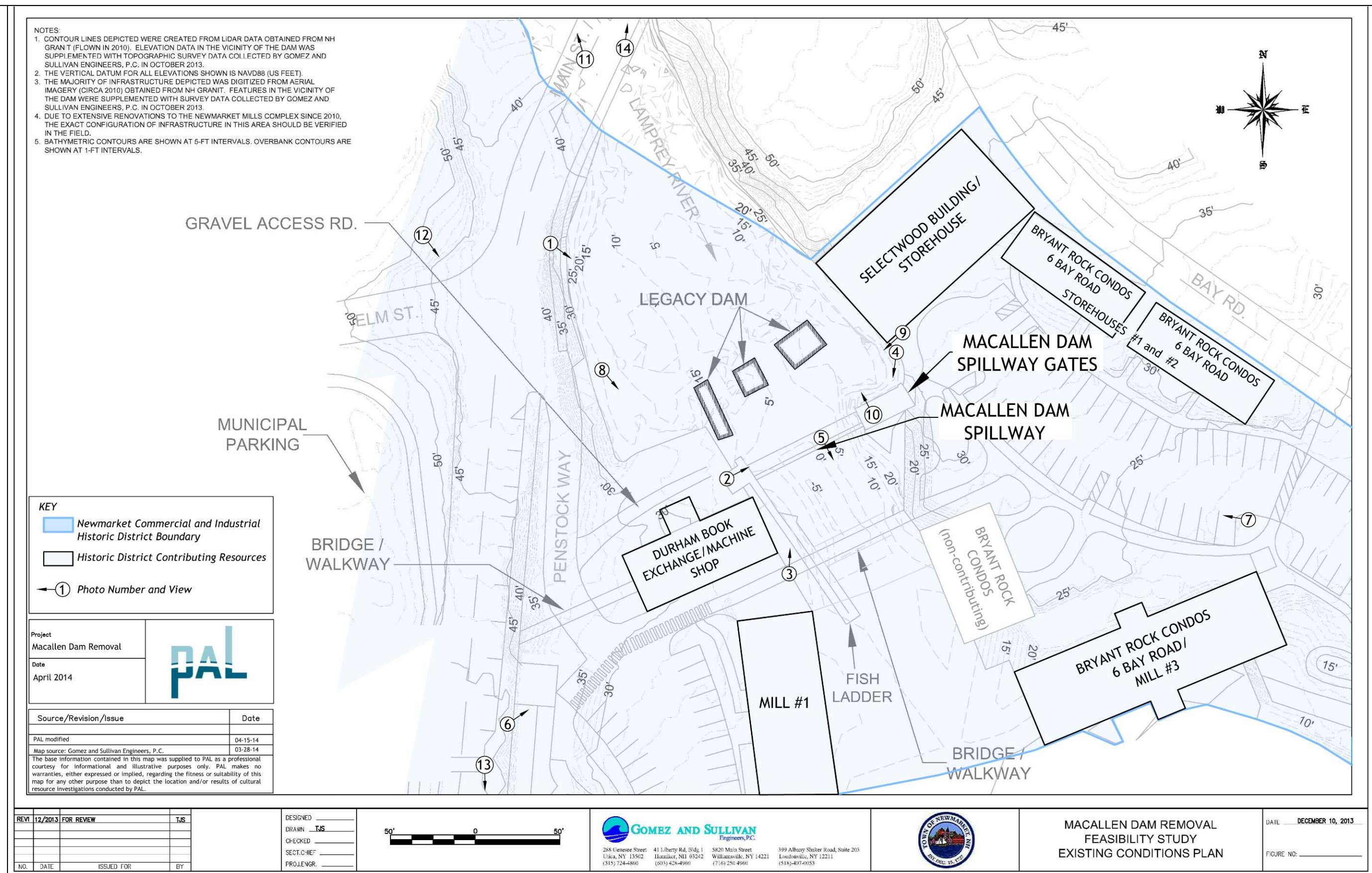


Figure 2. Macallen Dam Removal Feasibility Study existing conditions plan showing boundaries of Newmarket Commercial and Industrial Historic District and related contributing resources



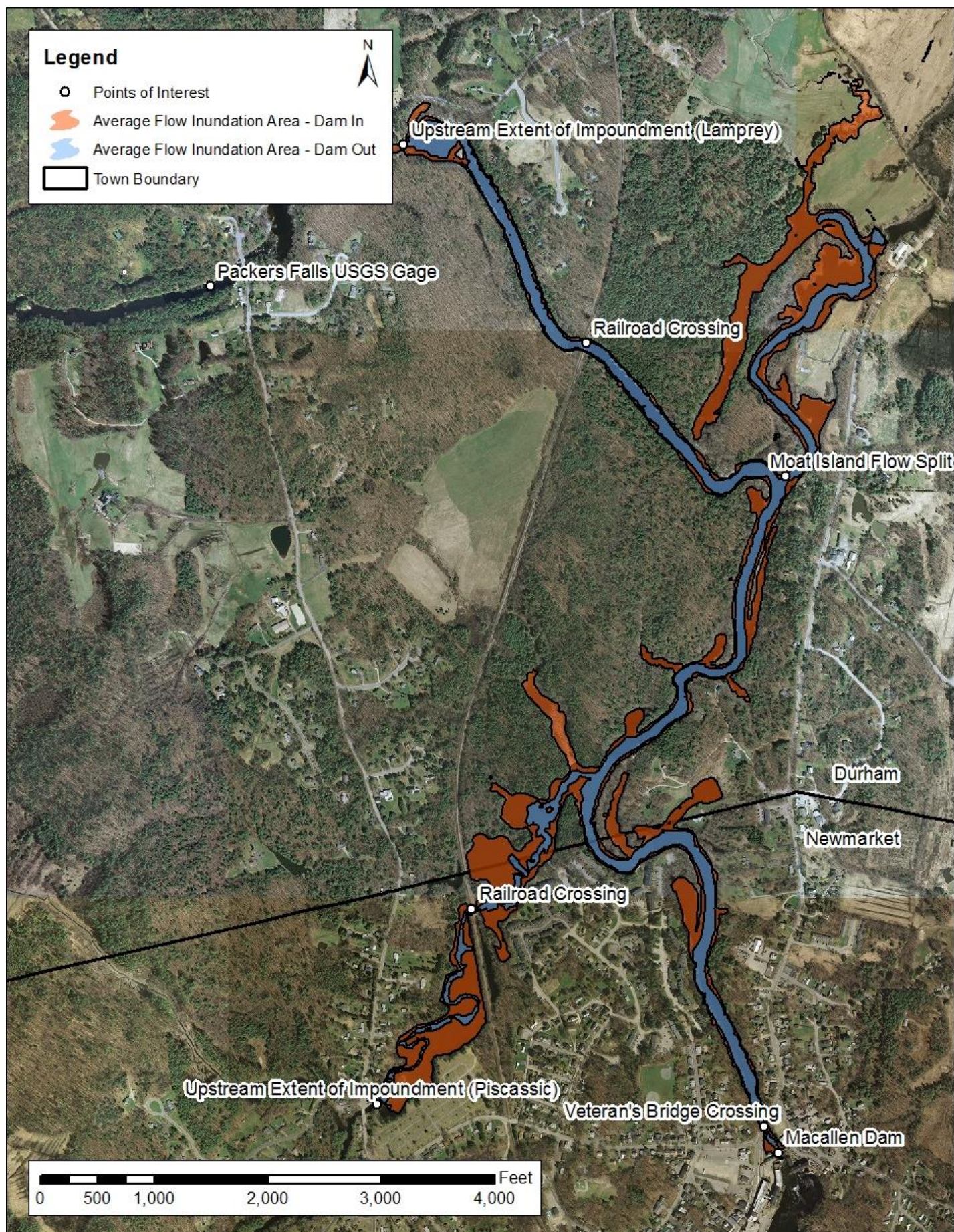


Figure 3. Daily average inundation area within the Macallen Dam impoundment.



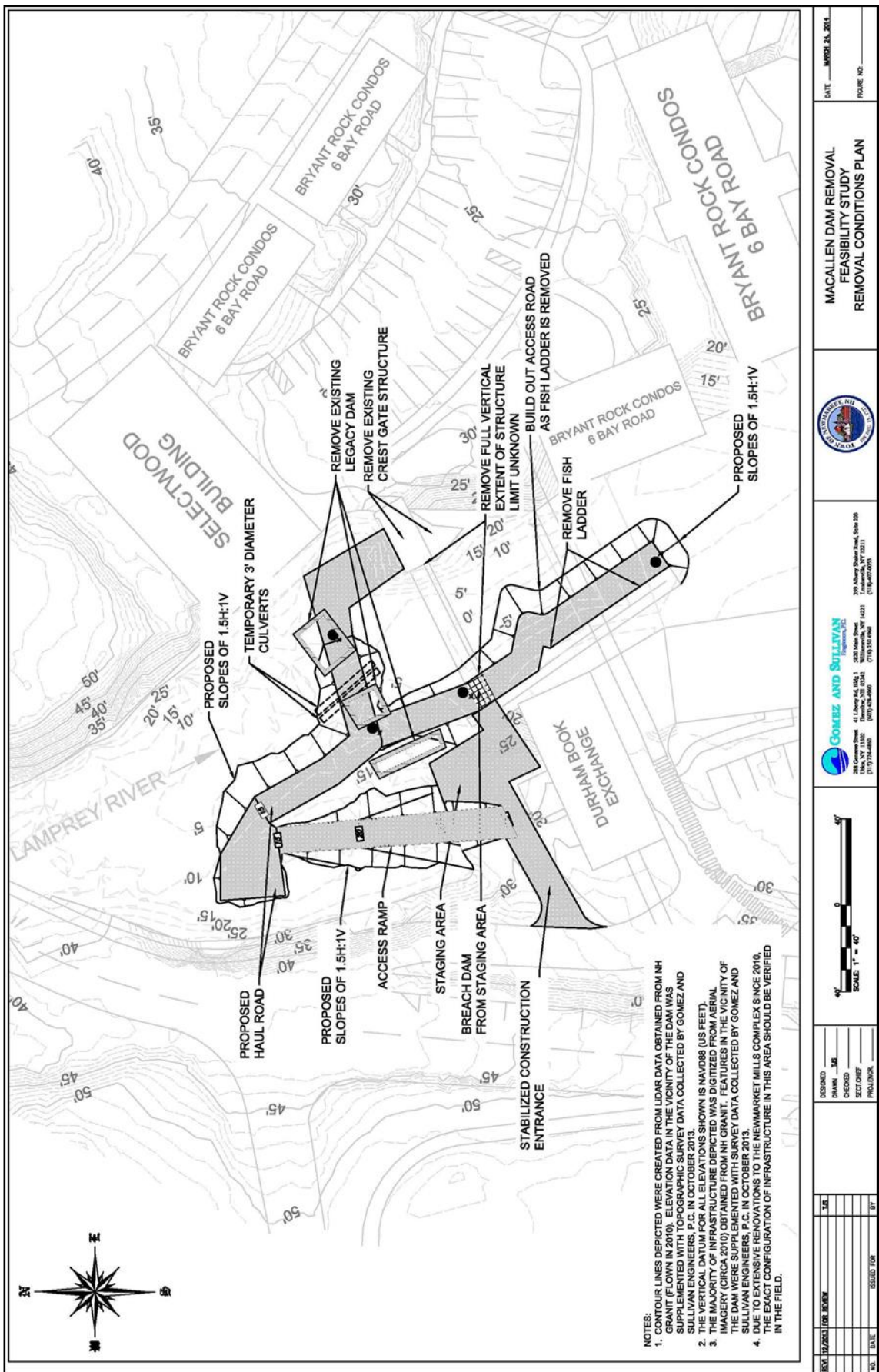


Figure 4. Preliminary proposed construction access and staging areas, Macallen Dam Removal Feasibility Study.

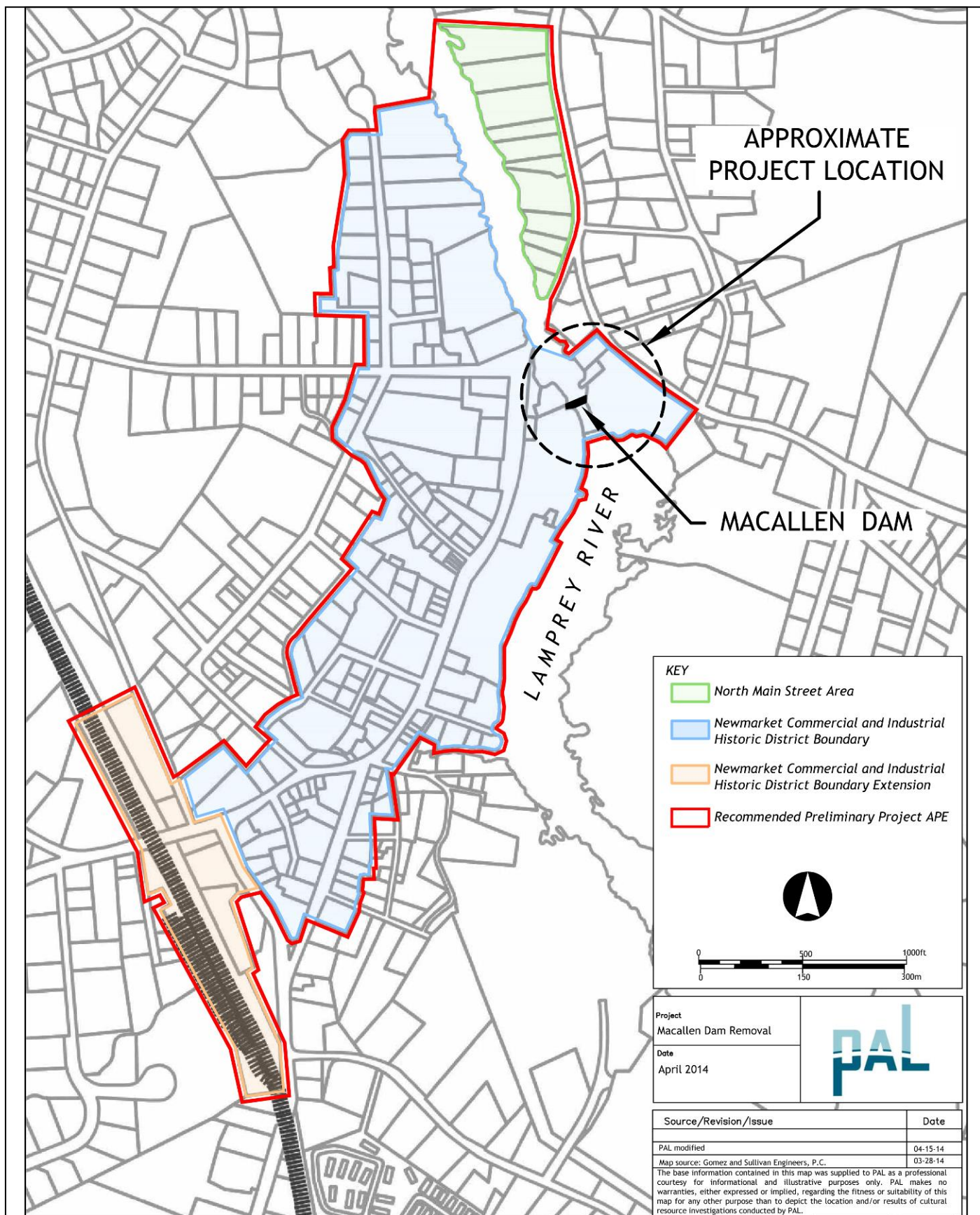


Figure 5. Map of Newmarket showing and approximate Project and Macallen Dam locations, boundaries of the Newmarket Commercial and Industrial Historic District, inventoried DHR areas identified for Historic District expansion, and a recommended Preliminary Project APE for architectural properties.



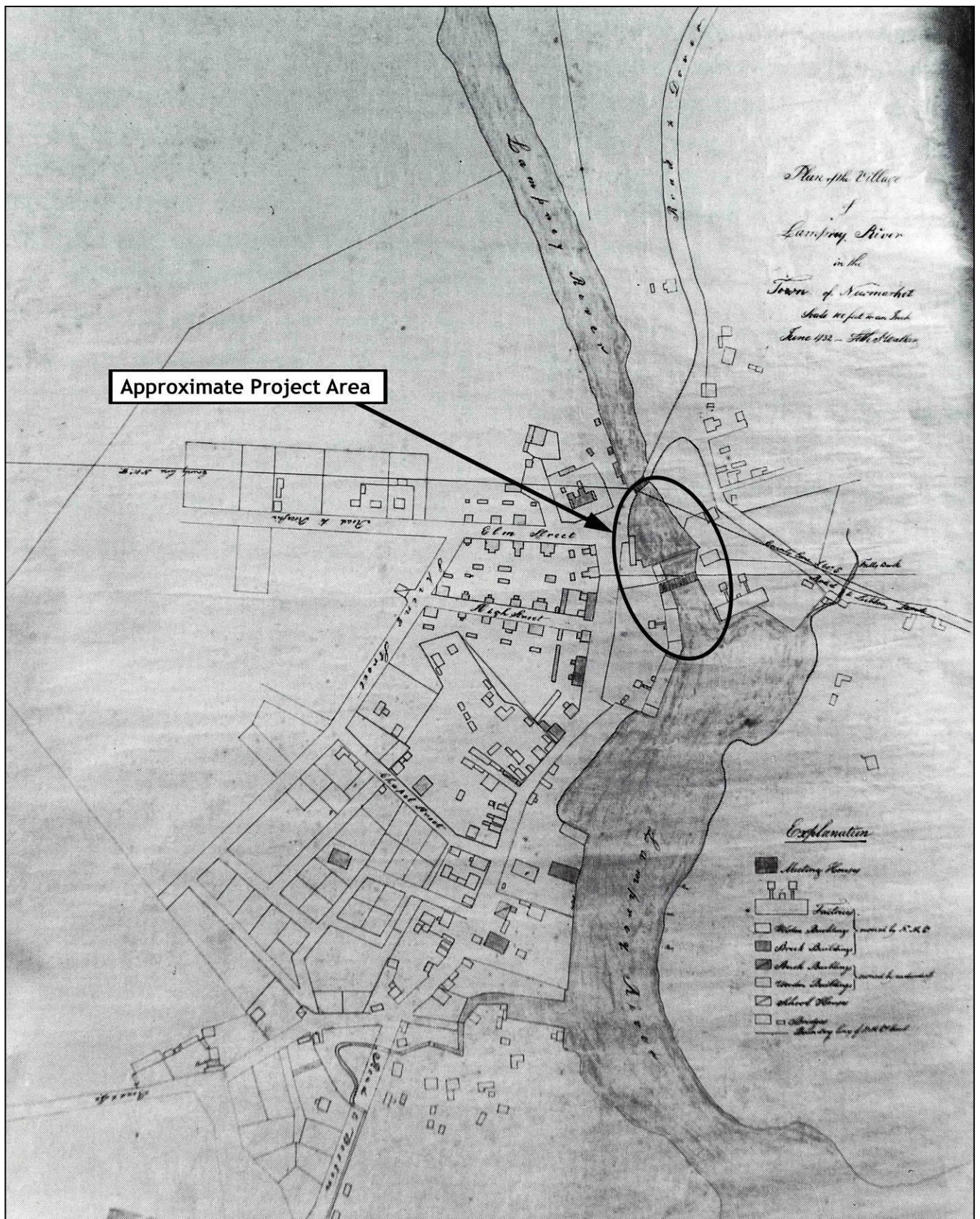


Figure 6. 1832 plan of Newmarket showing approximate Macallen Dam Project location. Macallen Dam not constructed at this date (Walker 1832).



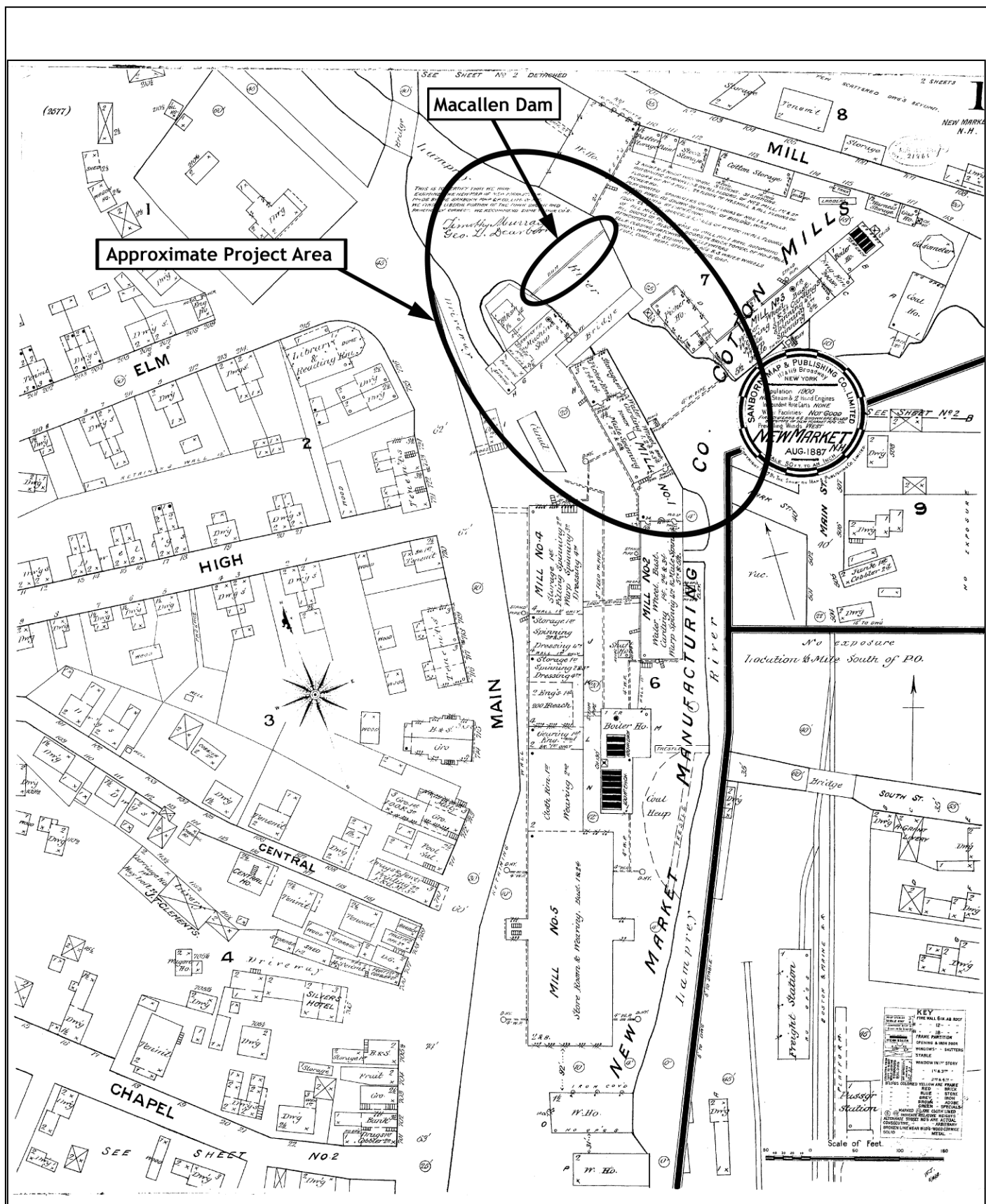


Figure 7. 1887 map of Newmarket showing location of Macallen Dam and approximate project location (Sanborn Map Company 1887).

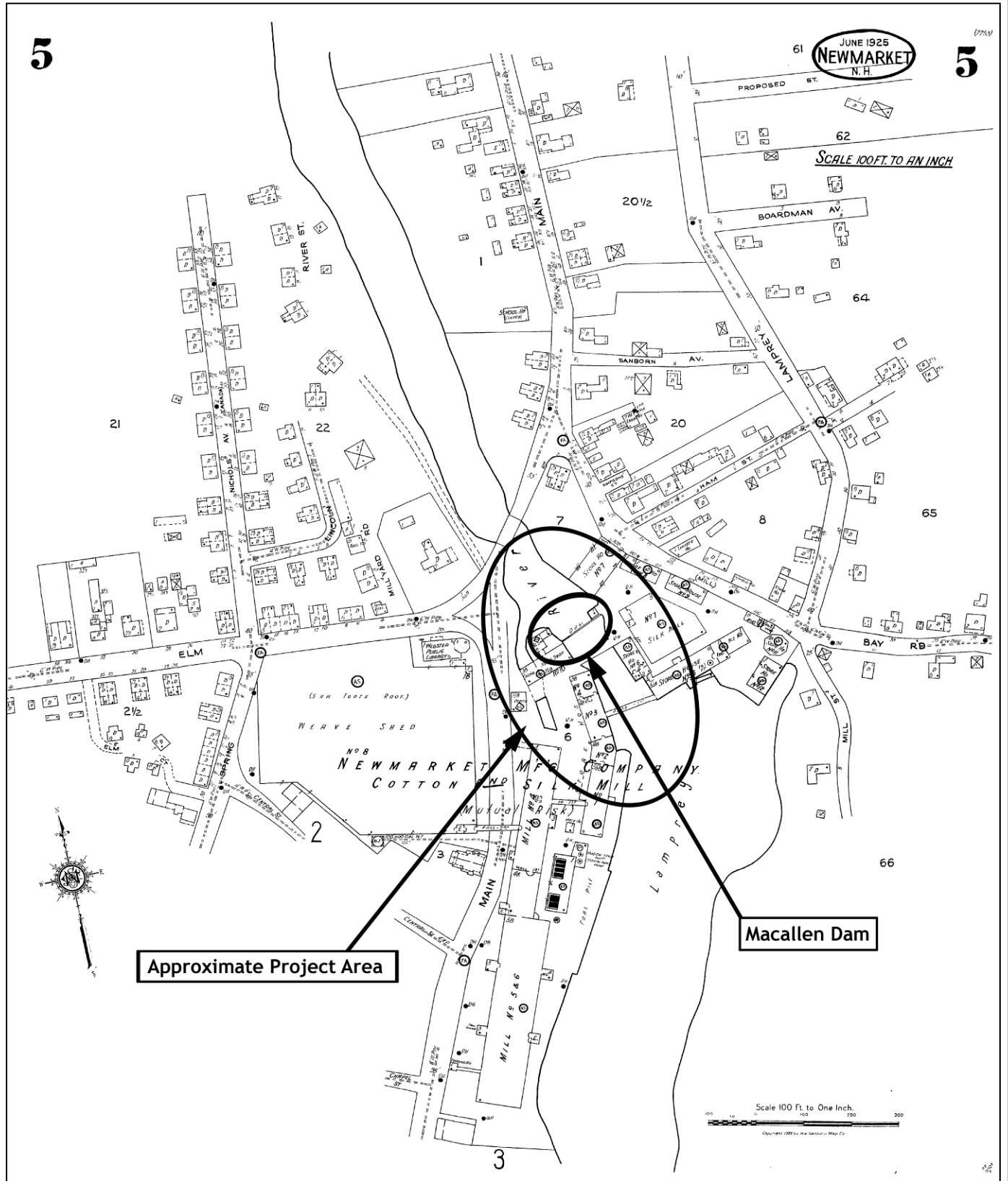


Figure 8. 1925 map of Newmarket showing location of Macallen Dam and approximate Project location (Sanborn Map Company 1925).



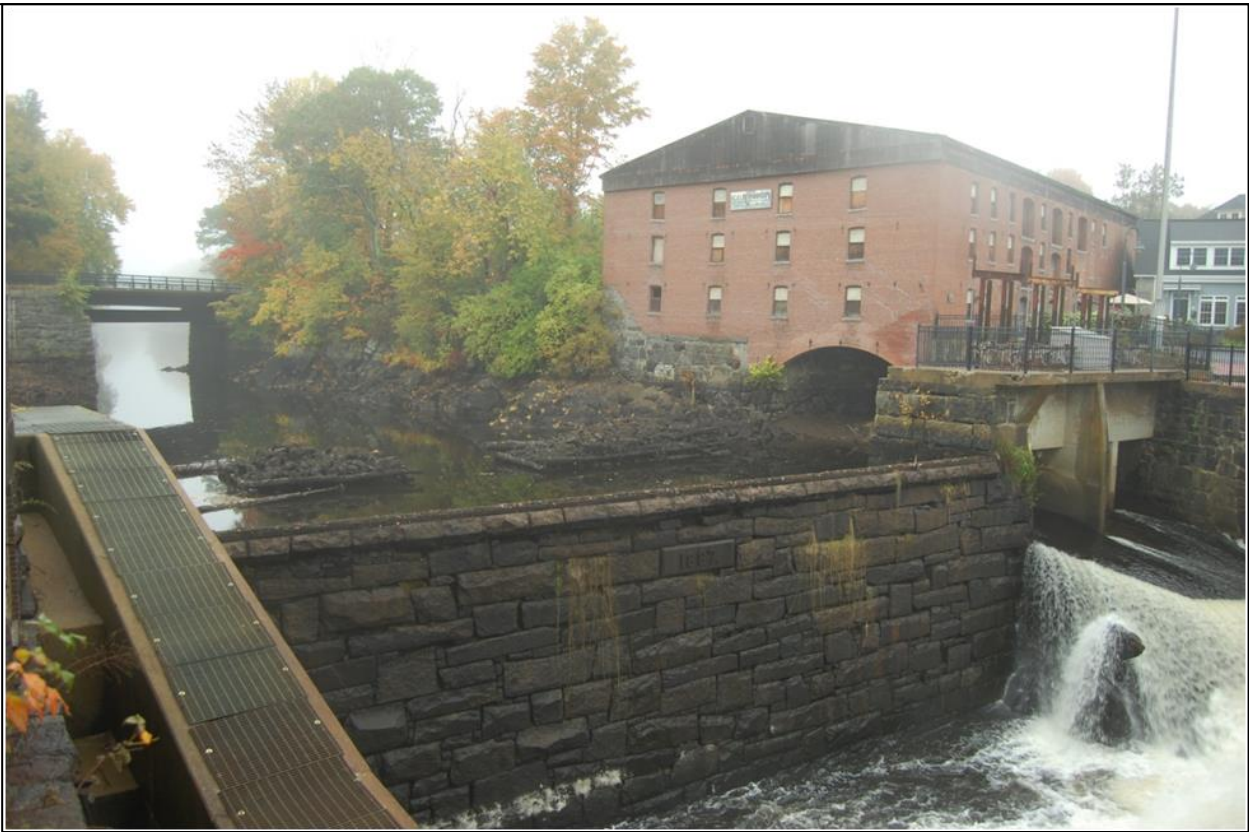


Photograph 1. Setting of Macallen Dam within the former Newmarket Manufacturing Company complex, view south down the Lamprey River from Main Street.



Photograph 2. Upstream face of Macallen Dam, view looking east-southeast from west bank.





Photograph 3. Downstream face of Macallen Dam, view northeast from the west bank. Fish ladder is at left and sluice gate structure is at right. The Store House (NR resource no. 9, aka Selectwood Building ) is at rear right. Possible project access to between this building and the sluice gate on opposite bank.



Photograph 4. Detail of the sluice gate structure, upstream side, view south from the west bank.





Photograph 5. View downstream (south) from dam with fish ladder on bottom right and Mill #1 on right. Brick condominiums at left have replaced Mill #7, which is now demolished.



Photograph 6. Former mill complex on west side of the river, view east from Main Street. Machine Shop (now Durham Book Exchange) at left of view and Mill #1 at right of view. River is behind buildings and dam is not visible.





Photograph 7. View of former mill complex on east side of river, showing possible project access route through parking lot. River and dam are at rear, behind flagpole. Parking lot and brick condominiums at left occupy former location of Mill #7, now demolished. The Store House is at rear right of view.



Photograph 8. Stone retaining wall along west bank upstream of dam and mill buildings, view south from Main Street. Machine Shop visible at rear. An access ramp and staging area are considered for this location.





Photograph 9. In-stream wooden structures upstream of the dam, view west from east bank. Possible access from bank on far side of river, immediately to right of Machine Shop.



Photograph 10. View looking upstream (north) from Macallen Dam sluice gate to Veteran's Bridge.





Photograph 11. View upstream (north) from Veteran's Bridge showing impoundment/river channel.



Photograph 12. General view of north end of Newmarket Commercial and Industrial Historic District, looking southeast from intersection of Main Street and Elm Street. Macallen Dam is at center-left (behind sidewalk railing).





Photograph 13. Newmarket Commercial and Industrial Historic District, streetscape, view looking south on South Main Street.



Photograph 14. View looking northeast from Veteran's Bridge showing the North Main Street Area, potentially eligible for listing in the National Register as an expansion to the National Register-listed Newmarket Industrial and Commercial Historic District.